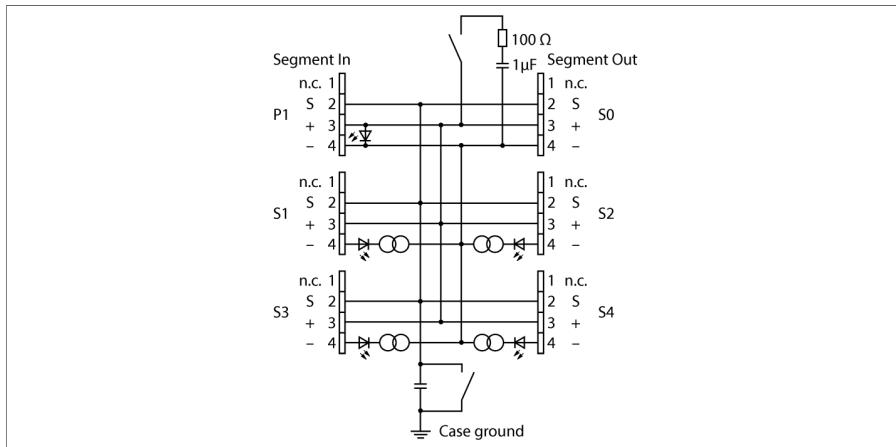


# FOUNDATION fieldbus

## IP67 junction box, 4-channel

### JBBS-49SC-T415B/EX



The 4-channel Ex junction box JBBS-49SC-T415B/EX is designed for FOUNDATION™ fieldbus systems.

The junction box is equipped with an adjustable short-circuit current limiter. As maximum current limit, the following values can be selected together for all channels via a rotary coding switch: 30, 35, 45 and 60 mA.

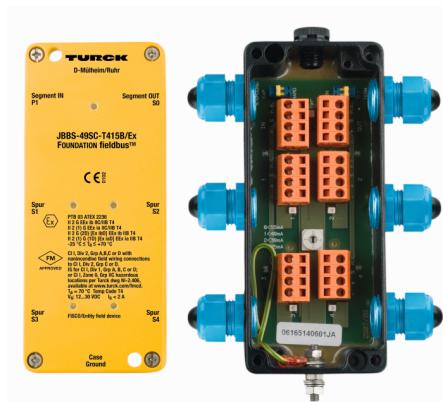
The housing is made of powder-coated die-cast aluminium and is IP67 rated.

The junction box is equipped with an activatable terminating resistor for the bus. The switch is integrated in the housing on the board.

Condensation in the housing is prevented by a breather.

Shielding and housing can be connected directly via a second switch which is also located on the board.

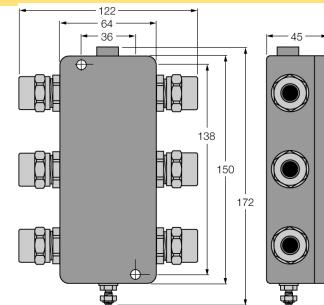
**Note:** It must be ensured that there is sufficient equipotential bonding in the system. The device is connected to the equipotential bonding via the housing's M5 x 1 grounding bolt.



- Junction box for wall mounting with PVC cable glands M20 x 1.5
- Short-circuit protection per drop line/spur
- Integrated terminating resistor (activatable)
- Cable shielding: Capacitive or direct connection to housing potential selectable via switch
- Isolated support terminal for optional protective conductor incorporated in cable
- Powder-coated die-cast aluminium housing
- Pressure compensation element protects against condensation
- Connection of the housing potential via M5 x 1 bolt
- Entity and FISCO compliant according to IEC 60079-11

|  |  |
|--|--|
| Type   | JBBS-49SC-T415B/EX   |
| ID   | 6611441  |
| Fieldbus standard                                | IEC 61158-2  |
| Operating voltage                                | 12...32 VDC  |
| Current self-consumption                         | ≤ 7 mA   |
| Voltage drop                                     | ≤ 0.3V   |
| Short-circuit protection                         | ≤ 30, ≤ 35, ≤ 45, ≤ 60 mA  |
| Displays/Operating elements                      |  |
| Operational readiness                            | 1 x green  |
| Short-circuit message                            | 4 x red  |
| Ex approval acc. to conformity certificate       | PTB 03 ATEX 2236   |
| Device designation                               | Ex II 2 G Ex ib IIC T4 Gb  |
| Device marking                                   | Ex II 2 (1) G Ex ia [ja Ga] IIC T4 Gb  |
|  | Ex II 2 (1D) G Ex ia [ja IIIC Da] IIB T4 Gb  |
|  | Ex II 2 (2D) G Ex ib [jb IIIC Db] IIB T4 Gb  |
| FISCO / Entity field device                      |  |
| Entity Parameter                                 |  |
| Max. output voltage U <sub>o</sub>               | ≤ 24 V   |
| Max. output current I <sub>o</sub>               | ≤ 250 mA   |
| Max. output power P <sub>o</sub>                 | ≤ 2560 mW  |
| Max. input voltage U <sub>i</sub>                | ≤ 24 V   |
| Max. input current I <sub>i</sub>                | ≤ 250 mA   |
| Max. input power P <sub>i</sub>                  | ≤ 2560 mW  |
| FISCO parameter according to IEC 60079-11        |  |
| Max.output voltage U <sub>o</sub>                | ≤ 17.5 V   |
| Max. output current I <sub>o</sub>               | ≤ 380 mA   |
| Max. output power P <sub>o</sub>                 | ≤ 5320 mW  |
| Max. input voltage U <sub>i</sub>                | ≤ 17.5 V   |
| Max. input current I <sub>i</sub>                | ≤ 380 mA   |
| Max. input power P <sub>i</sub>                  | ≤ 5320 mW  |
| External inductance/capacitance L/C <sub>c</sub> | trunk (in/out):<br>negligible / ≤ 5.00 nF<br>per field circuit:<br>negligible / ≤ 0.82 nF<br>Σ Field circuits:<br>negligible / ≤ 5.00 nF |
| Electrical connection                            | Cable gland  |
| Segment IN                                       | 1 x M20 x 1.5 (Ø 7...13 mm)  |
| Segment OUT                                      | 1 x M20 x 1.5 (Ø 7...13 mm)  |
| Spur line  | 4 x M20 x 1.5 (Ø 7...13 mm)  |
| Terminal cross-section                           | 0.2...2.5 mm <sup>2</sup> (AWG: 24...14)   |
| Earthing bolt                                    | M5 x 1   |
| Protection class                                 | IP67   |
| MTTF   | 117 years acc. to SN 29500 (Ed. 99) 40 °C  |
| Ambient temperature                              | -40...+70 °C   |
| Housing material                                 | Powder-coated die-cast aluminium   |
| Housing color                                    | Black/yellow   |
| Dimensions                                       | 64 x 150 x 45 mm   |
| Connection mode                                  | Wall mounting  |

## Dimensions



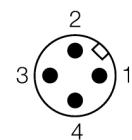
## Terminal assignment



1 = n.c.  
2 = Shield  
3 = +  
4 = -

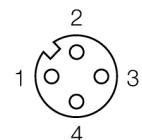
## — M12 x 1

Segment in



## — M12 x 1

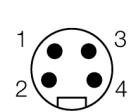
Segment out, Spur



nominal values: 4 A, 300 V

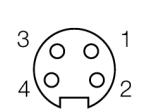
## — 7/8"

Segment in



## — 7/8"

Segment out, Spur



nominal values: 9 A, 300 V